

## AMENDMENTS TO THE SPECIFICATION

### In the Specification

Please replace paragraphs 4, 24, 27, 30, 32, 34, and 42 with the following:

[0004] CATV providers have also introduced a server into a head-end of the CATV system as shown in **Figure 1**. **Figure 1** Is a representation of a ~~CATC~~ CATV system 100 that provides simultaneous viewing of movies by consumers indicated in Figure 1, as individual homes. With reference to **Figure 1**, the CATV head-end 102 may contain three or four hundred movies indicated by movies 104. A cable network 106 is connected to a plurality of homes indicated as home 108 through home 122. In such a system bandwidth is allocated for simultaneous viewing of movies selected by each home. For example, a home 114 has selected a movie 124 to view. The CATV system allocates bandwidth to allow the home 114 to watch the movie 124. At the same time, the home 122 may have selected a movie 126 to view. The CATV system allocates bandwidth to allow the home 122 to view the movie 126 concurrently with the home 114 viewing the movie 124. Bandwidth allocated in this way by the CATV system is not available for the other uses until the home is finished viewing the selected movie. The simultaneous allocation of bandwidth to accommodate the individual homes viewing the different movies presents limitations on the system design.

[0024] In one embodiment, a scheduler 204 accepts the information from the information collection system 202 and selects multimedia-content that will be broadcast to the consumers from a pool of available multimedia content 206. The information collected from the consumers may include data on the state of the multimedia-content residing on the storage area. The selection of multimedia-content may be made in the light of the information collected from the consumer. A multimedia-content database/server configures the selected multimedia-content for transmission and may communicate with the information collection system 202 as required through a connector 205. Minimally, the connection 205 is used to communicate the list of available multimedia content to the

information collection system 202 such that analysis of the information and data received from 220 is applied to the current list of available multimedia content.

[0027] Corresponding to the schematic representation shown in **Figure 2**, **Figure 3** embodies four broad processes 300 that may be combined to select and adjust the multimedia-content of the consumer's storage area. Each of these broad processes will subsequently be described in more detail. With reference to **Figure 3**, information is gathered from the consumer at block 302. The information may come from a variety of sources. The information would be part of the information that would be used by the scheduler 204 (**Figure 2**) to select and schedule the multimedia-content to be broadcast to the consumer(s) at block 304. At block 306 the selected and scheduled multimedia-content is broadcast to the consumer(s). In block 308 the content of the consumer's storage area 216a (**Figure 2**) is managed as the multimedia-content is transferred to the storage area from the received broadcast signal.

[0030] In one embodiment, the process of selecting new multimedia-content to be broadcast may include, as input, a list of current movies that have been introduced in the last week. The list could then be filtered by selection criteria 400, such as that shown in **Figure 4**, resulting in the selection of the multimedia-content that will be broadcast next to the consumers. With reference to **Figure 4**, whether the current multimedia-content has been consumed is listed at block 402. Current multimedia-content in this usage refers to the presently existing multimedia-content on the consumer's storage area. Additional selection criteria may include: how many times the current multimedia-content has been consumed (block 404); has the current multimedia-content been marked for deletion (block 406); is the current multimedia-content still in the storage area (block 408); is the current multimedia-content intended to be saved/archived (block 410); and is the storage area categorized (block 412).

[0032] Information collected from the consumer(s) may be used to compile a histogram 500 as shown in **Figure 5**. The histogram 500 displays information on the categorized multimedia-content of the consumer's storage area or the aggregate storage area of a plurality of consumers, as a function of time. It is apparent to those of skill in the art that the invention may be implemented at a variety of levels as was previously explained. Therefore, the histogram in **Figure 5** may represent information from a single consumer or a plurality of consumers. With reference to **Figure 5**, information from the multimedia-content is depicted at 502 divided into several categories. A category 508, a category 510, a category 511, a category 512 and a category 514 make up the multimedia-content of the storage area. A quantity 508T, a quantity 510T, a quantity 511T, a quantity 512T, and a quantity 514T make up the number of movies residing on the storage area at a particular time 516. For example, With application to movies, category 508 could represent western movies and a quantity 508T could represent the number of western movies residing on the storage area at a particular time 516. The multimedia-content may change as a function of time. The axis indicating time is depicted by time 506. Each category has a magnitude at a particular time as indicated with user data frequency 504. User data frequency 504 may represent a number of items within a category of multimedia stored on the storage area or it may represent any other aspect of consumer information such as the number of times a particular multimedia-content has been consumed. ~~With application to movies, category 508 could represent western movies and a quantity 508T could represent the number of western movies residing on the storage area at a particular time 516.~~ The scheduler could use the information contained in **Figure 5** to decide to make western movies a greater percentage of the multimedia-content transmitted in the next broadcast, because of a declining number of western movies residing on the storage area and the need to update and refresh this category with new western movies. In a similar way the user data frequency 504 could represent the number of times western movies were watched over a particular time interval 516 and the scheduler could interpret the declining trend shown by the category 508 to arrive at the same decision concerning western movies. The category 510 and the category 511, like the category 508, have declining trends and the same decision could be made, e.g. (increase the

percentage of those categories in the next broadcast of multimedia-content). Conversely, the category 512 shows an increasing trend with respect to user data frequency 504, therefore the scheduler could decrease the percentage of this category in the next broadcast of multimedia-content to prevent the popular multimedia content from being replaced by new content. The category 514 has remained at a constant level over the time interval shown; therefore the scheduler could keep the percentage of the category 514 unchanged in the next broadcast. This method of selecting is just one of the many ways the scheduler 202 (**Figure 2**) could select multimedia-content intended for the next broadcast, the invention is not limited by the way in which multimedia-content is selected or scheduled.

[0034] Broadcast signal 214 (**Figure 2**) may carry the selected multimedia-content according to a variety of methods. In one embodiment, the multimedia-content may be sent on a substantially dedicated channel using a constant data rate. System architecture that sets aside one or more separate channels for the multimedia-content will result in a rapid transfer of the multimedia-content to the storage area ~~216a~~ 216a and 218a.

[0042] Returning to the case where the consumer has chosen to allow the storage area to be managed automatically, tags on the contents of the multimedia-content already on the storage area (old multimedia-content) are checked at a block 860 to see if any of the items are tagged for archiving. If none of the old multimedia-content is tagged for archiving, control flows to a block 862 and the new multimedia-content is transferred to the storage area 886 in which case the old multimedia-content may be deleted at a block ~~880~~ 864.